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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/524,076	03/13/2000	Peter Chalkowsky	TN-1698	6474

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EXAMINER

ASHLEY, BOYER DOLINGER

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 01/08/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/524,076

Applicant(s)

CHALKOWSKY, PETER

Examiner

Boyer D. Ashley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This office action is in response to applicant's amendment filed 11/03/03, wherein claims 1 and 4 were amended. It should be noted that this office action is non-final because it appears that the previously office action inadvertently failed to clearly address claim 4. Furthermore, upon further consideration the allowability of claims 7-11 is henceforth withdrawn in view of the following rejection. Any inconvenience is regretted.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 8-11, are indefinite because dependent claims 8-11 raise a question or doubt as to the metes and bounds of the patent protection desired. Claim 7 recites that the distance between the fence and a second endpoint in front of the fence is to be at least 1.1 times the radius; yet, claim 8 requires the distance to be between at least about 1.236 to about 1.252 time the radius; claim 9 requires the distance to be at least 1.244 times the radius; claim 10 requires the distance to be between about 0.60 and 0.775 times the chord length; and claim 11 requires the distance to be about 0.757 times the chord length. Claims 8-11 do not further limit claim 7 because they are

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outside the original limitation of at least 1.1 times the radius. In of words, how can the distance be at least 1.1 and also at least 1.236?

Although claims 10 and 11 do not fall into the same category of claims 8 and 9 because they refer to the chord length instead of the radius of the blade, the examiner must in light of claims 8 and 9, ask the question if these limitations correspond to each other. In other words, is it possible for the distance to be at least 1.1 times the radius and also be between 0.60 and 0.775 times the chord length as well as about 0.757 times the chord length. If it is the applicant is requested to explain how and the examiner will withdrawn this rejection of claims 10 and 11.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiotani et al., U.S. Patent 5,063,802, in view of DE 197 06 408, hereinafter DE '408.

Shiotani et al. discloses the invention substantially as claimed, including, e.g., a base assembly (1); a fence (10) attached to the base assembly (see Figure 1) for supporting a workpiece, the fence has a fence plane (the vertical abutting surface of the fence as shown in Figure 1); a rotatable table (2) rotatably connected to the base assembly, the table having a table plane (the horizontal surface of the table as shown in

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Figure 1) for supporting a workpiece; a saw assembly (7,8,9 as shown in Figure 1) including a motor (5) and a blade (7) driven by the motor, the blade having a radius (see Figure 1, wherein a circular blade is clearly shown) and a blade center (although not given a specific reference numeral the center is clearly shown in Figure 1); and a pivot arm (4) pivotally attached to the table through support arm 3 and pivotally supporting the saw assembly about a first axis (see the axis shown in Figure 1 between arms 3 and 4) substantially parallel to the table plane (see Figure 1), thereby allowing the user to plunge the blade below the table plane (see Figure 1).

Shiotani et al. appears from the drawings to have the following limitations but is silent to the specifics dimension of the distance between the first axis and the table plane being about 0.472 time the radius; the distance between the first axis and the fence plane being about 1.45 times the radius; and the distance of the between the first axis and the blade center being about 1.882 times the radius.

DE '408 discloses that it is old and well known in the art that there is a need to cut various sized workpieces with a single miter saw as well as to modified existing miter saws in order to cut various sized workpieces.

In light of DE '408 and because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and further because such a modification would have involved a mere change in the size of a component and changes in size are generally recognized as being within

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the level of ordinary skill in the art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the miter saw of Shiotani et al. with the specific dimensions stated above in order to allow for larger boards to be placed on and cut by the miter saw.

As to claim 1, the modified device of Shiotani et al. appears to disclose an area of the blade plunge below the table plane as being capable of being between about 14.4% and about 17.5 % of the total blade area and more specifically 15.75% based upon the blade size as well as how much is it is plunged. In the alternative, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the blade of the modified device of Shiotani et al. be capable of plunging between 14.4% and 17.5% of the total blade area below the table plane and more specifically about 15.75% in order to facilitate cutting larger sized boards, as also taught by DE '408 and because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges or values involves only routine skill in the art.

As to claim 5, the modified device of Shiotani et al. discloses a miter saw that is capable of having the distance between the blade center and the table plane being about 0.57 times the radius of the when the blade is plunged depending upon how much the blade is plunged.

As to claim 6, the modified device of Shiotani et al. discloses a miter saw that is capable of having the a chord length of the blade periphery plunged below the table

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plane being at least 1.6 times the radius of the blade depending upon how much the blade is plunged.

6. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 197 06 408, hereinafter DE '408.

DE '408 discloses the invention substantially as claimed, including, e.g., a base assembly (2); a fence (6,6',7,7') attached to the base assembly (see Figure 1) for supporting a workpiece, the fence has a fence plane (the vertical abutting surface of the fence as shown in Figure 1); a rotatable table (4/18) rotatably connected to the base assembly, the table having a table plane (the horizontal surface of the table as shown in Figure 1) for supporting a workpiece; a saw assembly (10,15 as shown in Figure 1) including a motor (14) and a blade (12) driven by the motor, the blade having a radius (see Figure 1, wherein a circular blade is clearly shown) and a blade center (13); and a pivot arm (generally indicated as 11 in Figure 1) pivotally attached to the table through support arm (not labeled) and pivotally supporting the saw assembly about a first axis (see the axis shown in Figure 1) substantially parallel to the table plane (see Figure 1), thereby allowing the user to plunge the blade below the table plane (see Figure 1).

DE '408 appears from the drawings to have the following limitations but is silent to the specific dimension of the distance between the first axis and the table plane is about 0.472 times the radius; the distance between the first axis and the fence plane is about 1.45 times the radius; and the distance of the between the first axis and the blade center is about 1.882 times the radius.

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DE '408 discloses that it is old and well known in the art that there is a need to cut various sized workpieces with a single miter saw as well as to modified existing miter saws in order to cut various sized workpieces.

In light of DE '408 and because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and further because such a modification would have involved a mere change in the size of a component and changes in size are generally recognized as being within the level of ordinary skill in the art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the miter saw of DE '408 with the specific dimensions stated above in order to allow for larger boards to be placed on and cut by the miter saw.

As to claim 1, the modified device of DE '408 appears to disclose an area of the blade plunge below the table plane as being capable of being between about 14.4% and about 17.5 % of the total blade area and more specifically 15.75% based upon the blade size as well as how much it is plunged. In the alternative, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the blade of the modified device of DE '408 be capable of plunging between 14.4% and 17.5% of the total blade area below the table plane and more specifically about 15.75% in order to facilitate cutting larger sized boards, as also taught by DE '408 and because it has been held that where the general conditions of a claim are disclosed

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in the prior art, discovering the optimum or workable ranges or values involves only routine skill in the art.

As to claim 3, the modified device of DE '408 discloses a miter saw with a slidable fence (6 or 6').

As to claim 5, the modified device of DE '408 discloses a miter saw that is capable of having the distance between the blade center and the table plane being about 0.57 times the radius of the when the blade is plunged depending upon how much the blade is plunged.

As to claim 6, the modified device of DE '408 discloses a miter saw that is capable of having the a chord length of the blade periphery plunged below the table plane being at least 1.6 times the radius of the blade depending upon how much the blade is plunged.

As to claims 7-11, the modified device of DE '408 appears from the drawings to have the following limitations in at least one embodiment, see Figure 4, including a chord of the blade periphery plunged below the table plane with endpoints behind and in front of the fence and as to the specific distance it should be noted that the modified device of DE '408 is clearly capable of the distance merely by selecting the appropriate sized blade as well as the amount of the blade that it is plunged.

In the alternative, even if it is argued that the modified device of DE '408 lacks the specific distance of a) at least 1.1 times the radius of the blade; b) at least between about 1.236 to about 1.252 times the radius; c) at least 1.244 times the radius; d) between about 0.60 to 0.775 times the chord length of the blade; and/or about 0.757

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times the chord length, it should be noted that the modified device of DE '408 discloses that it is old and well known in the art that there is a need to cut various sized workpieces with a single miter saw as well as to modified existing miter saws in order to cut various sized workpieces and in light of the embodiment shown in Figure 4 of DE '408 and because it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and further because such a modification would have involved a mere change in the size of a component and changes in size are generally recognized as being within the level of ordinary skill in the art, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the miter saw of the modified device of DE '408 with the specific distance between the fence and the endpoint in front of the fence as one of the specific distances mentioned above in order to support a workpiece relative to the blade such that larger boards can be cut by smaller blades.

Response to Arguments

7. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boyer D. Ashley whose telephone number is 703-308-1845. The examiner can normally be reached on Monday-Thursday 7:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 703-308-1082. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

A handwritten signature in black ink, appearing to read "Boyer D. Ashley".

Boyer D. Ashley
Primary Examiner
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BDA
January 7, 2004